

Bamiyan: Buddhist cave temples in Afghanistan

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Abstract

The Kyoto University Archaeological Mission carried out research on the Bamiyan caves in Afghanistan between 1970 and 1978. We aimed at making a general photogrammatic map of the whole area, attributing numbers to all the caves and documenting their murals. The principal cliff extends over 1,300 m linear distance and its maximum height is 150 m. More than 750 Buddhist caves were hollowed out along this cliff. The caves consist of several types of construction: two niches of standing Grand Buddhas, five niches of Seated Buddhas, domed-ceiling caves, vaulted-ceiling caves, laternendecke-ceiling caves and flat ceiling caves. About fifty caves have murals remaining inside; various types of figures are depicted in these: *buddhas*, decorated *buddhas*, *boddhisatva* figures (particularly Avalokitesvara) and circular *mandala* motifs are popular. Some designs were influenced by Sassanian art.

Keywords

Afghanistan; Central Asia; Buddhism; ritual sites; sculpture.

Buddhist cave temples across Asia

Cave temples of the Buddhist religion are, as a rule, located in isolated hilly places far from human habitation. Hardly suitable for instruction of the laity – one of the functions of normal Buddhist temples – the caves were utilized by monks practising their religion in isolation. In India itself, the homeland of Buddhism, cave temples are said to number more than 1300, built mainly between the second century BC and the seventh century AD. Many are also found in the modern states of Bihar, Orissa and Andhra but most are concentrated in the limestone zone of the Western Ghats (see Chakrabarti Plate 1, this volume); however, individual groupings in India are not comprised of a great number of caves: Ajanta has 29 caves, Nasik 24, Bhaja 18, Aurangabad 13 and Kanheri 109 (see Morrison Figure 5, this volume).

Each cave in India is constructed in a specific architectural style, *chaitya* (worship hall) or *vihara* (monastery) (see Chakrabarti, this volume), and they are decorated with sculptures and murals pertaining to the Buddhist religion. *Chaitya* caves are for worship;

thus they have a church-like structure comprised of a long, narrow consecrated hall with a rounded wall at the far end (making a horseshoe-shaped floor plan) and a vaulted ceiling. At the rounded end, *stupas* (mound-shrines) are enshrined for worshipping. The *vihara* caves, on the other hand, are the living quarters of the monks. The floor plan of these caves is rectangular with a flat ceiling. A *vihara* cave is composed of a hall in the center, wall openings from which lead into priestly quarters or mortuary temples.

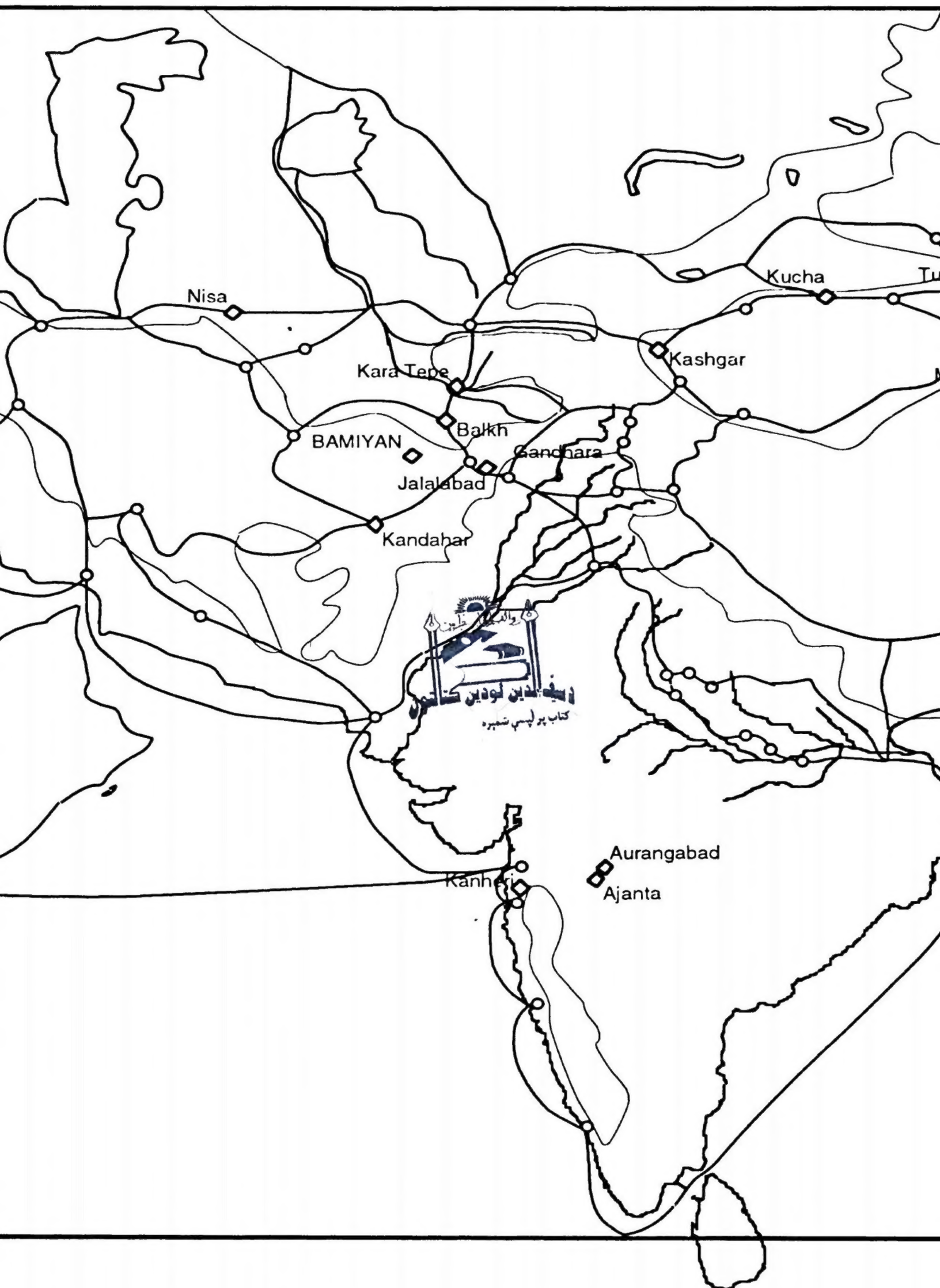
Buddhism diffused out of India first to the north west through the Gandhara state (in modern northern Pakistan) into the region of Afghanistan. Surprisingly, there are few cave temples in the former region, perhaps because there were no suitable cliffs in which caves could be hollowed out; instead, hill temples located near towns was the Gandharan pattern. In Afghanistan, however, cave temples are concentrated in great numbers in three regions: Jalalabad (180 caves), Haibak (200 caves) and Bamiyan (1,000 caves). In contrast to the Indian cave temples (numbering between 1,200 and 1,300), these caves are on a smaller scale, their construction is much simpler, and there are few murals.

Further north in Uzbekistan, Buddhist cave temples can be found at the ruins of Kara Tepe in Termez, on the bank of the Oxus river. From here, Buddhism spread east into China (Fig. 1). Along the northern rim of the Tarim Basin in China's Xinjiang province, cave temples are located at Kashgar, Kucha and Turfan. The Uch-meravam (Three Hermit) caves at Kashgar were among the first to be investigated by Western scholars, beginning with Paul Pelliot's investigations (Pelliot 1906). At Kucha, cave temples are extremely numerous at Qyzyl (236), while others are located at Kumtura (72), Shimshin (52), Mazar-bech (34) and Kuzulgaha (46). Turfan is especially well-known for the Bezaklik caves (57) and more are known in the southern Tianshan range (25) (Yan 1962). In Gansu province, there is the large complex of caves at Dunhuang (492 caves) and Maiji Shan (194 caves). Further inland in northern China are the famous Yungang and Longmen caves, among many other cave complexes found on Chinese territory.

Geographically, the cave temples of Afghanistan, particularly Bamiyan, were the westernmost of all the above sites. It is not known why Buddhism did not spread further west towards the Sassanian and Byzantine empires from this point; but Bamiyan itself, located on the Silk Road, was in a position to receive influences not only from India but also from Sassanian and Byzantine artistic traditions and transmit them on to East Asia.

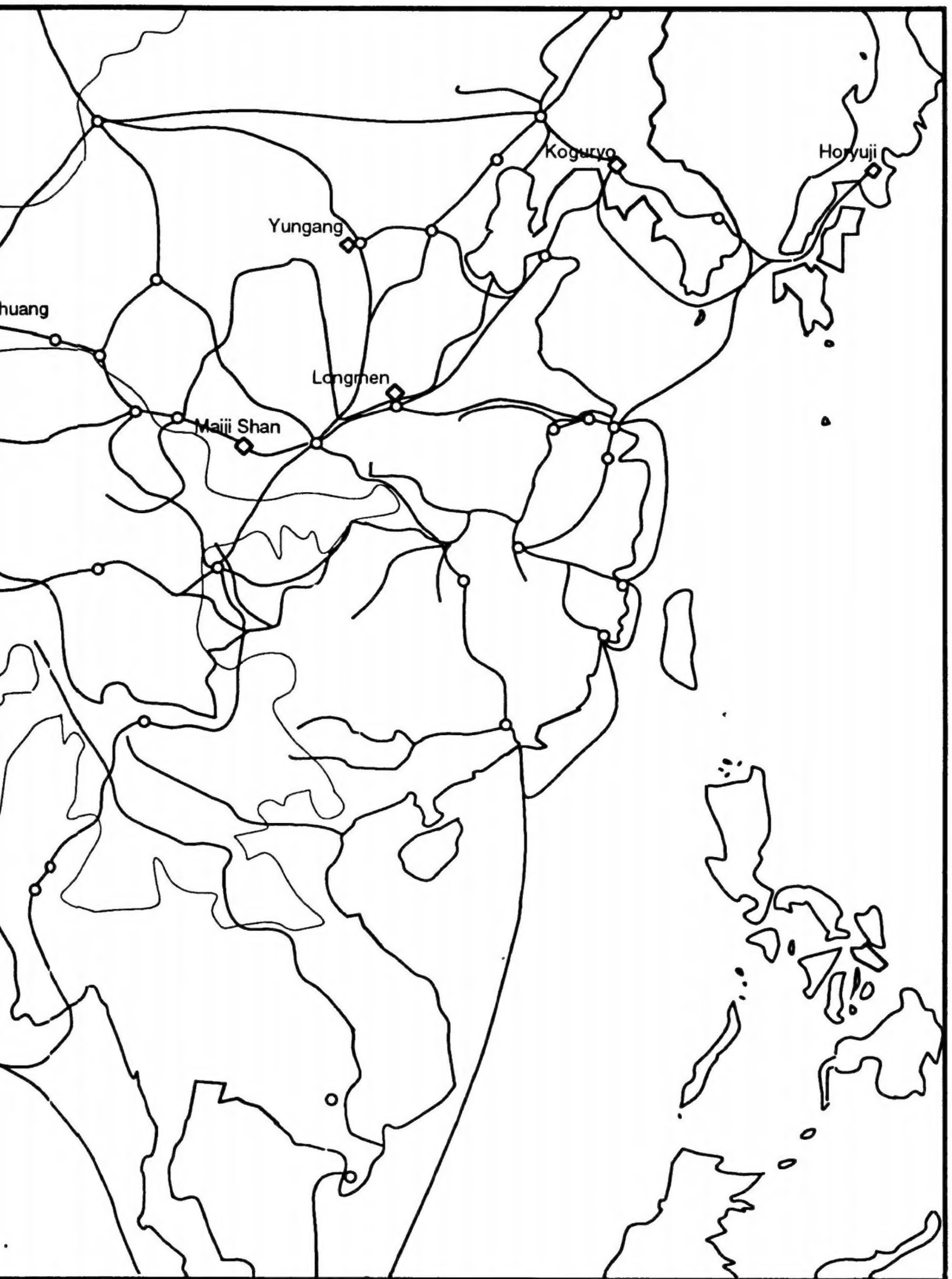
For example, an important element of Afghanistani cave temple architecture is the squinch arch. This apparently was developed in the Sassanian dynasty, and the earliest form is seen in the palace of Ardashir I in Firzabad, Fars province, Iran (Higuchi 1980: Fig. 37). Such an arch was also identified Cave No. 3 at Takht-e Rostam, Haibak (Kyoto University 1962), and this architectural form occurs in China at the secular site of Miran, Xinjiang province, and in the old city of Gaochang at Turfan, as well as in brick buildings across Central Asia.

A second distinctive architectural component is the 'lanternendecke' type of triangular corner truss-bracket ceiling construction. It occurs across Eurasia in both true architectural constructions – such as at the palace at Nisa, capital of the Parthian kingdom (250 BC – AD 226); Ashkhabad, Turkmenistan (third century BC); in the rock chamber tombs of the Thracian period of Bulgaria (second century BC); and in the Koguryo mural tombs of northern Korea (sixth century AD) – as well as in artistic depictions, for example, in the engraved figures on the rock chamber graves at Yinan, Shandong province (late second



Map of the Silk Road, other local trade routes and major Buddhist sites along them (by J. Wright).

Bamiyan: Buddhist cave temples in Afghanistan



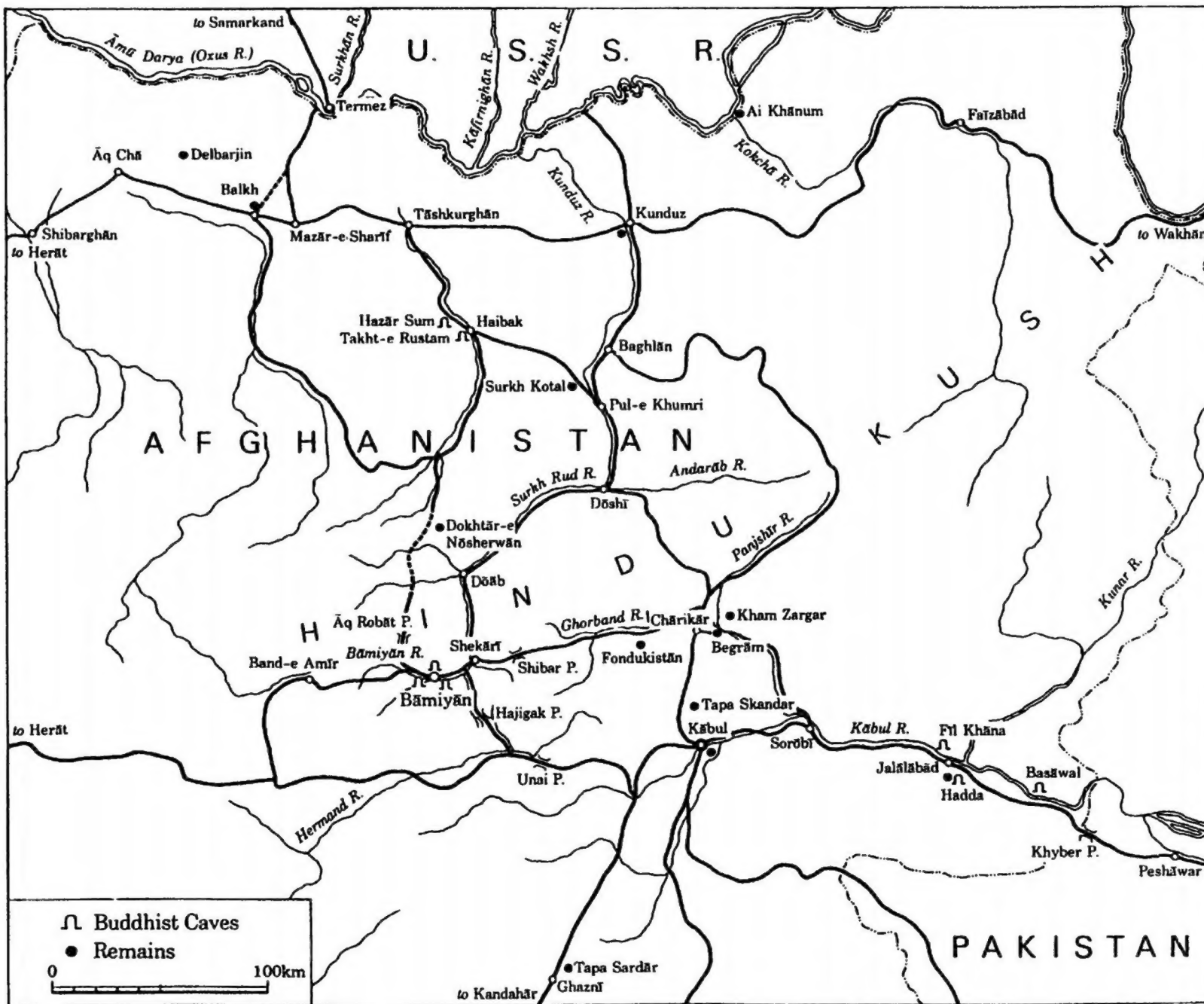


Figure 2 The Buddhist remains of north-eastern Afghanistan (Higuchi 1980: figure 1).

century AD), and as depicted in the murals of the ceilings of the Dunhuang caves in Gansu province (fifth century AD), China.

Finally, the dome ceiling might be seen as a West Asian influence; although it was found in India also, it was confined there to the circular hall. The concept of setting up a dome in a square plan is seen in Byzantine and Sassanian palaces, and it occurs quite frequently in the Afghanistani cave temples.

Afghanistan's cave temples

Within Afghanistan, Bamiyan is one of several concentrations of Buddhist cave temple (Fig. 2). Many occur in the neighbourhood of Jalalabad: the Fil-Khana caves cut into in the sandstone formations on the north bank of the Kabul river; three cave groups at the foot of the Shiah Koh mountains to the west of the Jalalabad basin; the Al-khanezar caves on the Chaharbagh plateau at the southern rim of the basin; stucco finds and caves in the low undulating hillocks near Hadda; the Hodara-shah caves near Tepe Zargaran; and the caves at Basawal, near the Pakistani border, carved into the schist hills on the north bank

of the Kabul river. Haibak also forms another focus of cave temples: the Takht-e Rustam caves hollowed out of limestone, and 200 caves at Hazar-Sum.

Three main types of cave architecture are seen at these sites: square caves with pyramidal ceilings, rectangular caves with vaulted ceilings, and caves with square columns. Some caves possess two or three rooms laid out in sequence, one behind another. In the eastern group at Fil-Khana, Cave #6 has a large main room, with a square column in the center and ten around rooms adjoining it – interpreted as priests' quarters. In the western Fil-Khana group, five large caves are connected by tunnels – interpreted as assembly halls. The three Fil-Khana cave groupings are arranged around a *stupa* on the top of a hill, and this served as the main object of worship. All these functions have counterparts at Haibak.

Bamiyan came to western notice through the travels of nineteenth-century explorers such as W. Moorcroft and G. Trebeck (Wilson 1841), Sir A. Burnes and Dr Gerard (Burnes and Gerard 1833), C. Masson (Masson 1836), M. G. Talbot and P. J. Maitland (Talbot and Maitland 1886) and others. The first scientific researches were carried out by the French Mission Délégation Archéologique Française en Afghanistan (Hackin and Carl 1933); and in the 1920s and 1930s, A. Foucher, J. Hackin (Hackin 1959), and A. M. Godard (Godard, Godard and Hackin 1928) worked at the site. After the Second World War, B. Rowland and Smaryalai Tarzi have been the most active Western researchers (Rowland 1947, 1966, 1971; Tarzi 1977). The Japanese Mission of Kyoto University, headed by Prof. S. Mizuno, started the survey of Buddhist sites in Afghanistan and Pakistan between 1959 and 1968 (Mizuno 1962). The Nagoya University team visited the site twice in 1964 and 1969 (Kashiwagi 1966, 1967) and discovered the mural cave (#471). The Seijo University team, led by Prof. O. Takada, visited twice in 1975 and 1977 to research its art historical aspects (Takada 1978; Kashiwagi 1966, 1967). The full-scale researches of the Kyoto University Mission at Bamiyan, headed by Prof. T. Higuchi, were conducted between 1970 and 1978, with activities truncated by the Soviet military invasion of Afghanistan. During the two decades of Kyoto University research, work was conducted at Hadda, Basawal, Qunduz, Haibak, Bamiyan, Tepe Skandar and elsewhere (Higuchi 1976, 1978, 1980a, 1980b, 1984; see Higuchi 1984 and Klimberg-Salter 1989 for fuller bibliography). The war has since visited destruction on many of these important Afghanistani cultural heritage sites.

The Bamiyan caves

The largest and most important of the Afghanistani sites is Bamiyan, a Buddhist cave-temple complex located in a basin of the Hindu Kush mountain range about 250 km. north-west of Kabul (Fig. 3). The basin is situated on an ancient crossroads leading to China in the east, India in the south, Persia in the west and Bactria in the north. The caves cluster into three groups: those of the principal Bamiyan cliff group in the north, the Foladi Valley group in the west, and the Kakrak Valley group in the east. The Kakrak Cave group consists of about 100 caves located along the foot of the cliff on the eastern bank of the Kakrak river. There is only one standing *buddha* sculpture, about 6.4 m in height in a niche-cave, and murals are not abundant. Some murals, however, remain in the Foladi Cave group in the western part of the basin; about 50 caves are scattered along the cliff of the small valley.

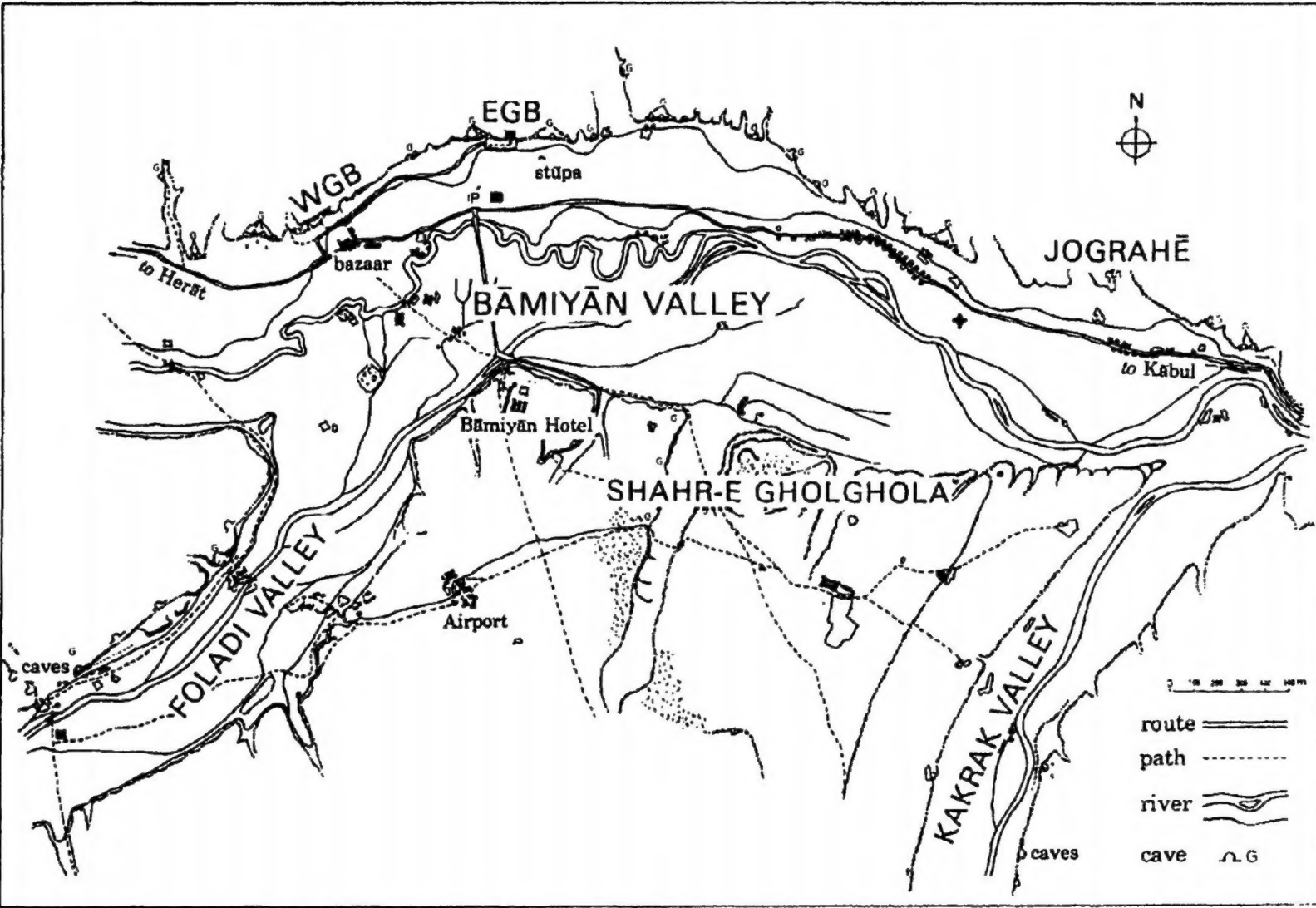


Figure 3 The Bamiyan basin with the locations of the main cave groupings. WGB = West Great Buddha; EGB = East Great Buddha (after original by J. Meunié in Hackin 1959).

The caves of the principal cliff, usually referred to as the ‘Bamiyan caves’, parallel the main caravan road and are situated behind its shops and restaurants facing south (Plate 1). The cliff itself extends over 1300 metres from east to west and is about 150 metres in height. The caves were hollowed out in the lower part of this cliff. Originally, the cave mouths were fronted by wooden facade buildings, but these have all since disappeared.

Mapping the caves

Between 1970 and 1978, we were able to make a general map of the caves bordering this basin by photogrammetrical survey using a Zeiss TMK stereo camera with a focal separation of 60 mm. We counted 751 caves, and the interior of each was measured and further photographs were taken of those that had murals. This survey resulted in the renumbering of certain caves (Table 1 and Fig. 4). The following discussion of the photogrammetry survey is based on Ushikawa’s work (Ushikawa 1984: 240–5).

Photogrammetry is a non-destructive technique which developed from exercises in aerial photographic mapping. The principle is the same: using a stereo camera to provide two images which can be overlapped to produce a three-dimensional rendition of the object. It is often used on small objects but can equally be applied to large objects and landscapes, as at the Bamiyan cliffs. It is also time efficient – with little fieldwork time needed for production of the basic photographs but sufficient time for careful manipulation in the laboratory. Finally, with the production of the basic photographs, the objects can be re-measured according to future research requirements.



Plate 1 The faceless West Grand Buddha today, as integrated into modern life (Higuchi 1980b: plate 1). (From *Cave Temples in Bamiyan* (1980) by T. Higuchi, reproduced courtesy of the Dohosha Publishing Co. Ltd, Japan.)



The Bamiyan cliffs offered a challenge to the technique of photogrammetry. The cliffs, extending east–west for 1,300 m and upwards between 60 and 150 m, were formed in three parts. The western cliffs were the largest at 680 m in length and 150 m in height; next were the eastern cliffs at 510 m in length and 100 m in height; the smallest were the central cliffs at 110 m in length and 60 m in height. The western and central cliffs continued in a straight line, but an angle intervened between the central and eastern cliffs, after which the latter extended straight. Thus it was necessary to photograph two aspects of the cliffs: Face A (west + central) and Face B (east). Also there was a talus slope at the base of the cliffs and numerous erosional troughs running down their faces; it was realized that it would be almost impossible to set the cameras at a distance strictly parallel with the cliffs. Foot inspection along the cliffs revealed that the two great *buddha* sculptures in the east and west were carved exactly perpendicular to the cliff line, so it was decided to put these figures in the centers of the photographs and use them for setting the distance and angle of the cameras. The photo line set up ‘parallel’ to the cliffs was marked by two points set in

Table 1 Collation of the main caves in Bamiyan

No. of caves	Designation by the French mission	Designation by Nagoya University	Caves preserving wall paintings (○)
24		East III	○
33		U	
35		T	
38		Vd	
51	G		○
72	F	Fc	○
111		M	○
114		L	
120	A	A up (a)	
129	A	A down (a)	○
130	A	A down (c)	○
140	B	Bd	○
152		B1 d	○
155	(35 m buddha)	East Grand Buddha	○
164	C	C b	○
165	C	C a	○
167	D	D	○
168		D1	○
171		Sf	
172		Se	
176		Sa	○
201		Rb	
222		Ee	○
223	E	Ec	○
330	K		○
386	J	Jg	○
388	J	Jd	○
404	H		○
471		Na	○
530	I		○
605	XI		
620	(53 m buddha)	West Grand Buddha	○

concrete, and 107 altitudinal points were determined on the upper cliff and the talus slope for photographing.

The East Grand Buddha sculpture stands about 20 m above the valley floor and there was no way to elevate the cameras to an equal height. Inevitably much dead space was created in the photos. Also, since the cliffs faced south, shadows were constantly changing with the movement of the sun. Several sets of photos minutes apart and with different filters were taken to try to get as great a representation as possible at each point along the photo line. Agfa Gebart and Ilford ASA 100 film was used, with a size of 90 × 120 mm. Back in the laboratory at Nara National Cultural Properties Research Institute, contour line representations of the cliff face were made on the ‘autograph’ machine with assistance from the Suzuki Laboratory of Nihon University Science Faculty and the Asia Aerial

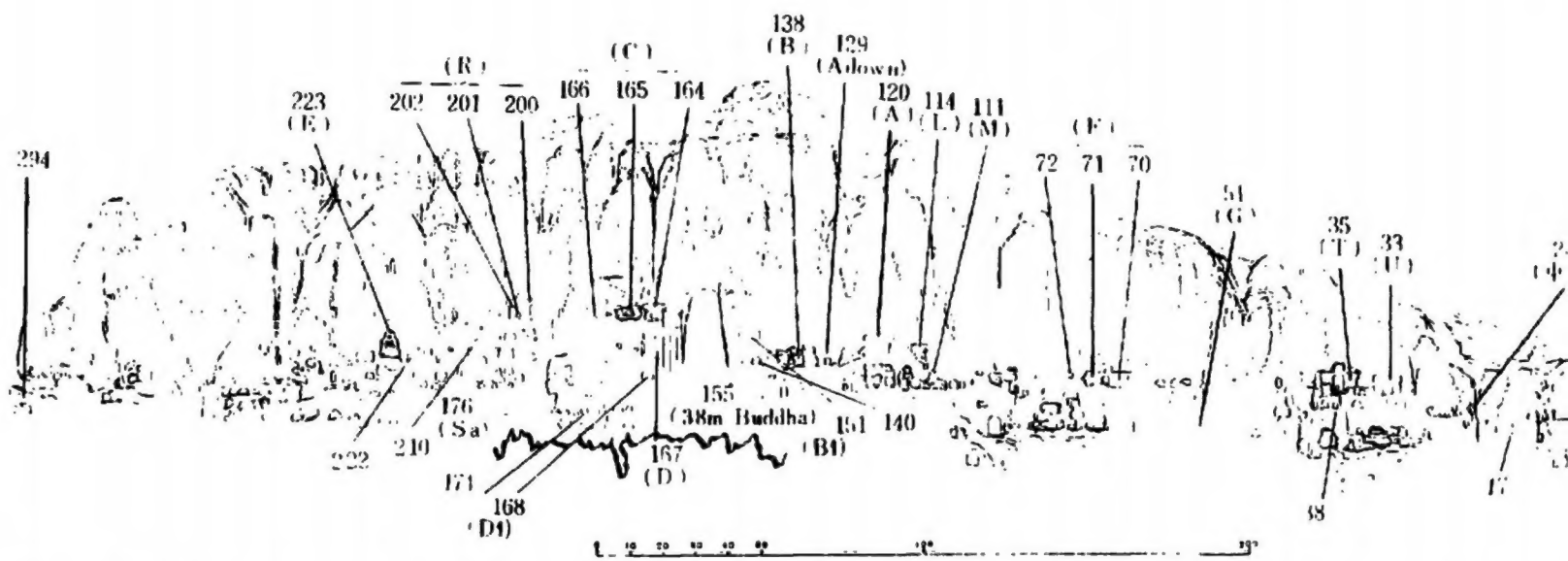


Figure 4 Photogrammetrical elevation of the eastern group of caves, showing the new numbering system (scale 1:2350) (Joint Archaeological Survey 1976: figure 26).

Photography Co. Ltd. With first class machines, the X and Y coordinates can be handled independently and thus a 1/50 scale composite drawing of the *buddha* sculptures were drawn with 10 cm contour lines, and a 1/200 scale composite drawing of the cliff face was made with 1 m contour lines. With this method, even those areas concealed by the overhang could be drawn – in contrast to standard section drawing techniques (Figs 4 and 5).

The grand Buddha statues

Most conspicuous at Bamiyan are the two Grand Buddha sculptures standing in trefoil niches. The West Grand Buddha (Cave #620) is 55 m high within its niche, while the East Grand Buddha (Cave #155) is 38 m high (Fig. 5). The western sculpture was more architecturally successful than the eastern one, due to the methods of access to the balcony surrounding their heads. Since the eastern wall provided a more suitable site, the eastern *buddha* was carved first. Access stairways were initially dug as vertical tunnels up into the cliff walls before the niche between them was excavated; these tunnels, however, hindered the proper carving of a niche, indicating a failure in architectural planning. For the western *buddha*, a level tunnel was hollowed out from halfway up the cliff, obviating the need for an inside stairway while still giving access to the balcony. At the base of the two sculptures were more tunnels that led around behind the statues. These allowed circum-ambulation during worship.

These grand *buddha* sculptures are truly remarkable, since they represent a complete departure from previous sculptural traditions. It is well known that in India and Gandhara there were two objects of worship: *stupas* and *buddha* sculptures. Largish *buddha* figures are known from the Gandhara region but do not exceed 10 m in height; such stucco figures are still extant in the temples of Dharmarajika at Taxila and Takht-e Bahi. *Stupas* were erected in large numbers in some areas of Afghanistan (east Kapisa, Begram, Kabul and Hadda) but not in Bamiyan. Here, small *stupa* platforms have been recovered from only two caves, but the *buddha* sculptures have been carved in monumental size.

It is my hypothesis that the tradition of making such huge sculptures came from the west. For example, it was an ancient tradition in Egypt to sculpt royal portraits out of the living



Figure 5 A photogrammetric representation of the West Grand Buddha carved into a trefoil niche (Higuchi 1984).

Table 2 Architectural variations in cave construction at Bamiyan (cave numbers marked with a ‘#’ are illustrated in Figure 6)

	Number in type
A. Square caves	
1. domed ceiling with horizontal band (c.g. #24)	8
2. domed ceiling with tambour (c.g. #33)	15
3. domed ceiling with squinch arches (c.g. #129)	16
4. laternendecke (c.g. #702)	22
5. flat ceiling	1
B. Octagonal caves	
6. domed ceiling with horizontal band (c.g. #70)	3
7. domed ceiling with tambour	13
8. laternendecke (c.g. #114)	6
9. cross-vault ceiling	2
C. Circular caves	
10. domed ceiling (c.g. #168)	6
D. Regular caves	
11. flat ceiling	many
12. vaulted ceiling	many
13. laternendecke (c.g. #38)	1
14. cross-vaulted ceiling (c.g. #140)	1
15. vaulted ceiling	9

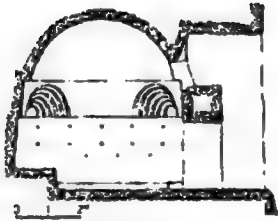
rock. In Greece and Rome, too, there were large sculptured deities. Similar ones occurred in Iran during the Sassanian dynasty as sculptured reliefs on rock walls. This western tradition of monumental sculpture seems to have melded with the Buddhist worship of statues at Bamiyan to produce the first grand *buddha* statues in Buddhist cave art. Another unique contribution of Bamiyan to Buddhist cave sculpture is the provision of circumambulation tunnels around the feet of the *buddha* sculptures. These were unknown in Indian temple sculpture but served as a model for cave architecture further east. The Qyzyl caves, for example, possess tunnels going round the back of the *buddha* niche – a feature indicating close connections with Bamiyan.

Architecture and cave function

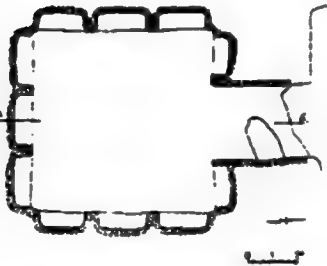
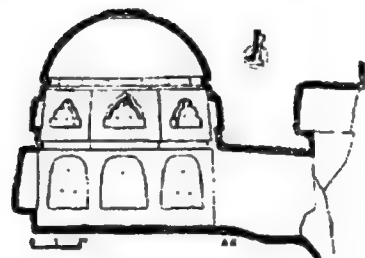
Architectural analysis possibly reveals differential functions of the caves. The Bamiyan caves can be divided into various shapes: square, rectangular, octagonal and circular. The ceilings are classified as flat, vaulted, domed and laternendecke. Each of these constituents derives from different sources. We can see the origin of squinch arch technology in the architecture of the Sassanian Dynasty of Iran (early half of the third century AD). The laternendecke technique is visible in the wooden houses of the forest zone in Western Europe and Central Asia. The concept of a domed ceiling over a square plan is evident in Sassanian and Byzantine palaces (third and fifth centuries AD, respectively). Influences from these different areas intermixed in the Bamiyan region, and the variations of shape



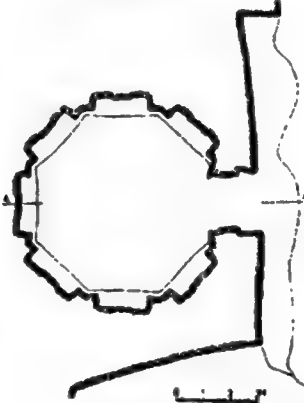
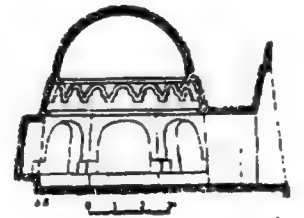
Cave #24 (former cave east-III)
lft: plan, rt: section



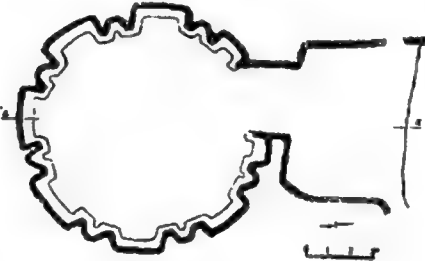
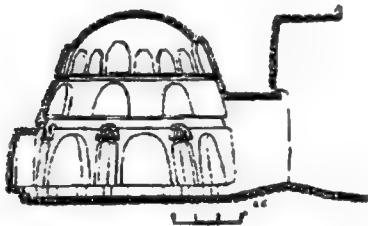
Cave #129 (former cave A-lower)
section



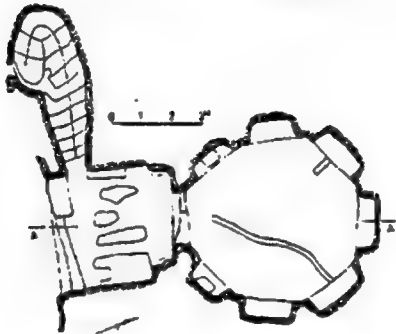
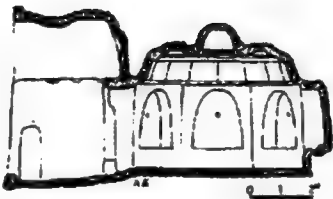
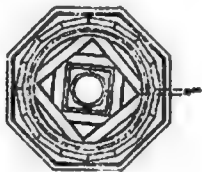
Cave #33 (former cave U)
top: section, bott: plan



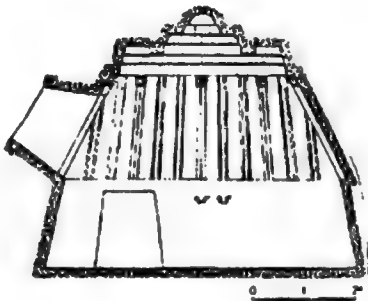
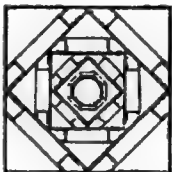
Cave #70 (former cave F)
top: section, bott: plan



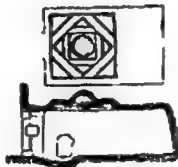
Cave #168 (former cave D₁)
top: section, bott: plan



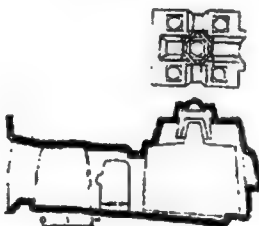
Cave #114 (former cave L)
top: ceiling plan, mid: section
bott: plan



Cave #702 (former cave XVI)
top: ceiling plan, bott: section



Cave #38 (former cave V)
top: ceiling plan, bott: section



Cave #140 (former cave B)
top: ceiling plan, bott: section

Figure 6 The different cave constructions at Bamiyan (see Table 2 for description of architectural components, keyed by cave number) (from Higuchi 1980: figure 36).

and ceiling form combined with each other to make fifteen different types of caves (as described in Table 2).

Types 11 and 12 are the most numerous and comprise the most basic architectural forms; moreover, they have neither mural decorations nor relief sculptures. Accordingly, these types were possibly used for daily life activities or as storerooms. Other types of caves are

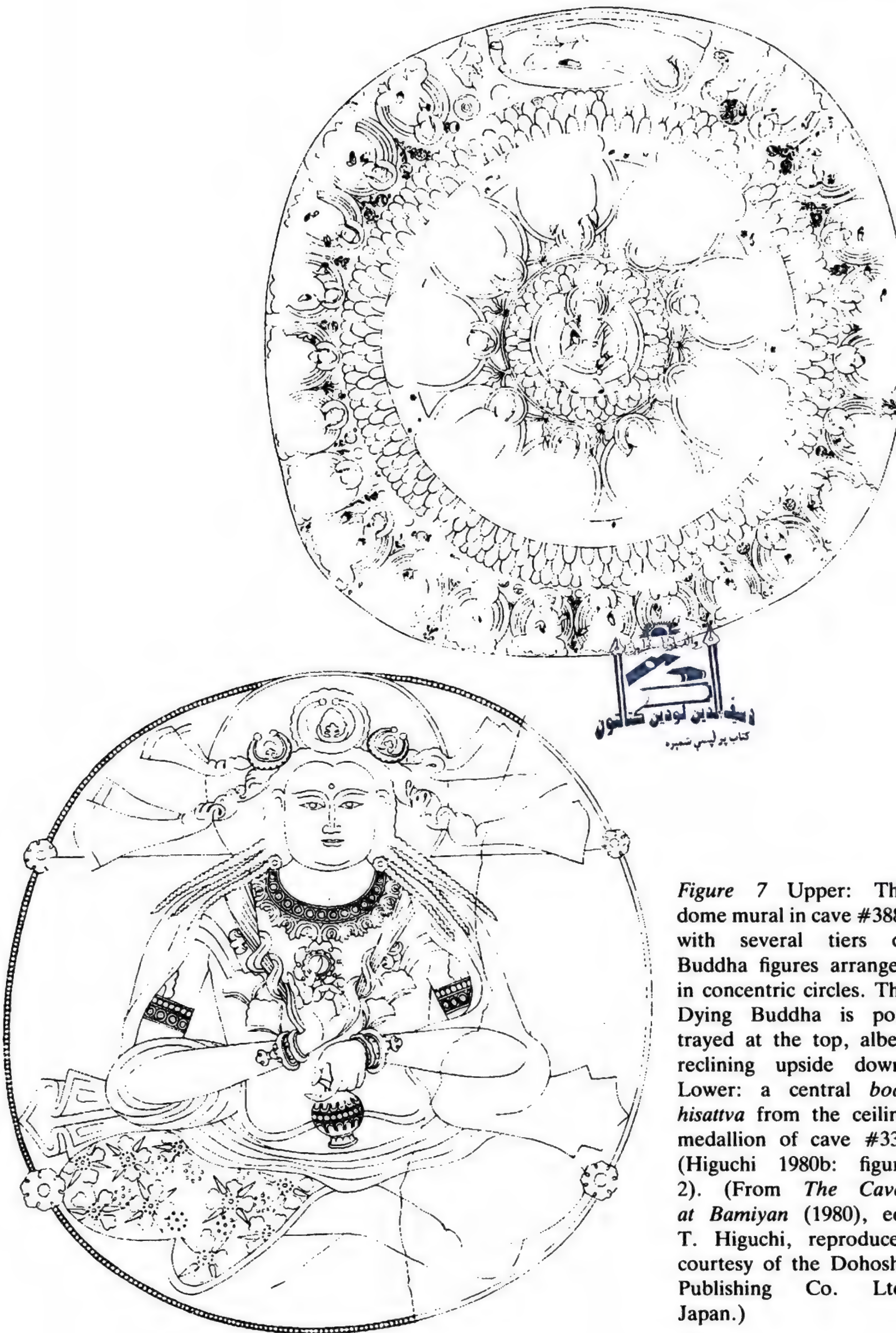


Figure 7 Upper: The dome mural in cave #38 with several tiers of Buddha figures arranged in concentric circles. The Dying Buddha is portrayed at the top, albeit reclining upside down. Lower: a central *bohisattva* from the ceiling medallion of cave #33 (Higuchi 1980b: figure 2). (From *The Cave at Bamiyan* (1980), ed. T. Higuchi, reproduced courtesy of the Dohosh Publishing Co. Ltd. Japan.)

not abundant, but their constructions are conspicuous and are decorated with murals and reliefs. They might have been used for the more public activities of Buddhism.

Buddhist ornamentation

Most Buddhist temples are embellished with various objects and decorations: *buddha* figures and *stupas* as objects of worship, murals of Buddhist images and legends, etc. In Bamiyan, however, *stupas* are very rare: traces of only two square altar bases remain in the centers of Caves #51 and #385. About fifty caves among the 751 have mural decorations inside. The subjects are many: *buddhas*, *bodhisattvas* (saviour figures), attendants, worshippers, and others. But scenes from Buddhist legends, the *jataka* stories, are rare; only the Dying Buddha *parinirvana* scene is painted in seven of the caves (#51, 72, 174, 222, 330, 386 and 388) (Fig. 7, at the top of the upper medallion).

The sculptures and paintings are not distributed independently of the architecture; there is some patterning in compositional form:

1) Circle composition: the main deity – for example, a *buddha* (often Maitreya) or a *bodhisattva* – is placed in the center of a circle (Fig. 7, lower) and surrounded by a group of small *buddha* figures, all facing in towards the center.

2) Concentric composition: the large main deity occupies the center and is surrounded by groups of small *buddhas*, just as in the circle composition, but the groups are arranged in two or three concentric circles with all *buddhas* looking towards the center (Fig. 7, upper).

3) Fan-shaped composition: this is seen in the squinch arches of Type 3 caves. The squinch arches in each corner of the square rooms form a succession of arcs; in the center of the lowest arc is a *bodhisattva* figure, and in the surrounding arc-shaped bands are small, seated ‘thousand *buddhas*’ facing outwards (Plate 2).

4) Niche-cave composition: this is seen in the arched ceiling of the niche-caves, Type 15. In the zenith of the arch along the central axis are the main deity figures. On the outer sloping arch sides are several tiers of seated *buddhas* in various poses, all facing towards the zenith.

The main feature of the Bamiyan mural compositions seems to have been circular *mandala* pictures, which became popular after the Gupta period. Bejewelled *buddhas* are to be seen in the murals of the two Grand Buddha niches. The *buddha* figures wear diadems, necklaces and other decorations. These features of *buddha* figures are characteristic of the tantric deity, Mahavairocana.

The unique figures of a type of flying deity, *apsaras*, can be seen in the murals of the West Grand Buddha in Cave-niche #620 and in the Seated Buddha Cave-niche #404. In #620, each group consists of three *apsaras* in an ellipse: one male in the center and two females on both sides. One of the latter is carrying a bowl of flowers and the male is scattering flowers. All the *apsaras* are flying up. In Cave #404, two *apsaras*, male and female in an ellipse, are also adorning the *buddha* from the air.

These *apsaras* are admiring the Grand Buddha. This motif may be the same with the flying Nike figures on the relief of funeral stone plates in Palmyra and on Roman sarcophagi. In those, there is a bust of the deceased in the center and two flying genii admiring the deceased on both sides. This motif diffused to the east and appears in the murals of Dunhuang and at the Yungang caves of China, and at the Horyuji Temple in Japan.

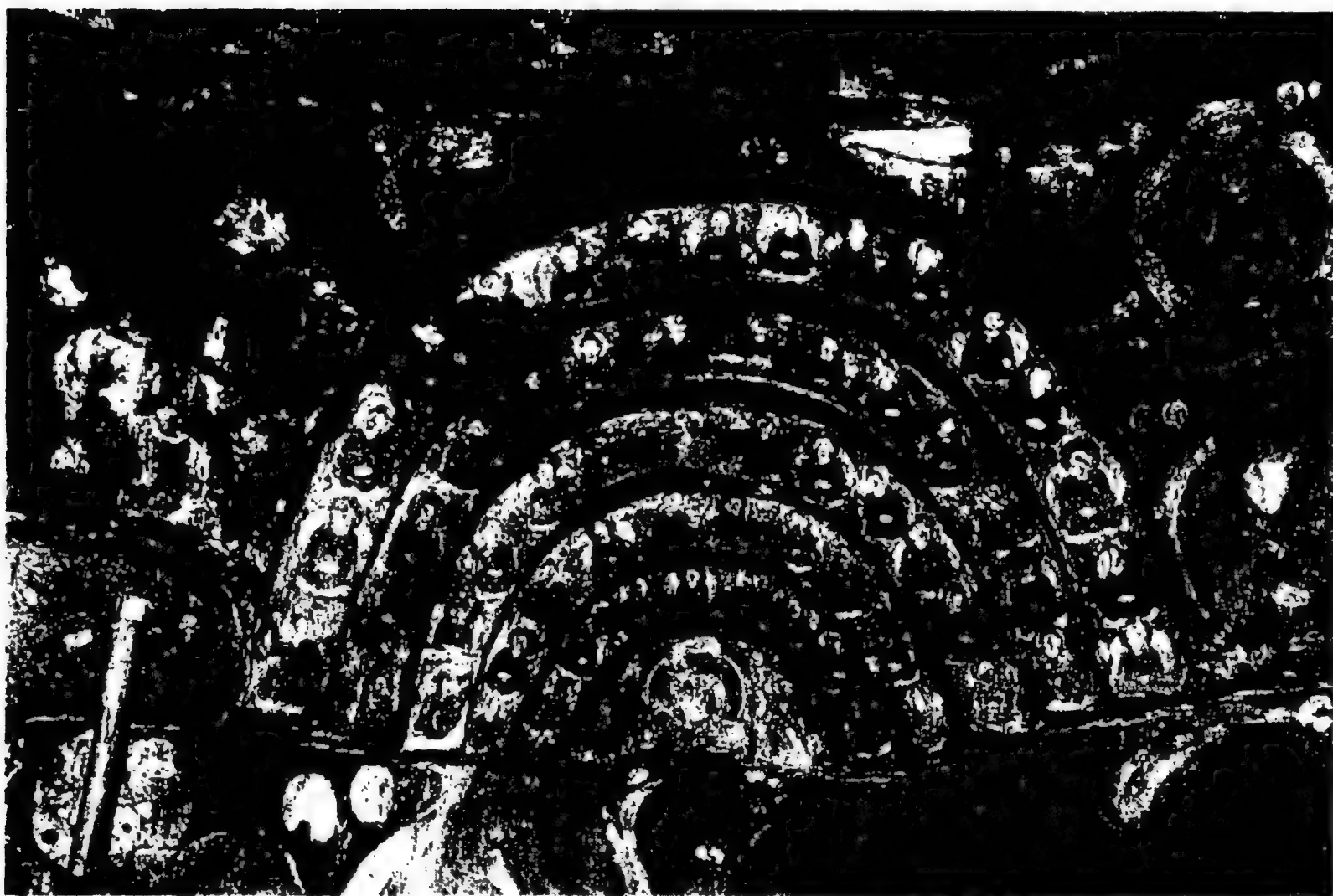


Plate 2 A squinch arch in Cave #114 decorated with *buddha* paintings (Higuchi 1980: plate 66). (From *Cave Temples in Bamiyan* (1980), ed. T. Higuchi, reproduced courtesy of the Dohosha Publishing Co. Ltd, Japan.)

Grand Buddha niche paintings

The niche of the West Grand Buddha was carved in a classical trefoil shape. The interior surfaces of the niche around the head and shoulders of the Grand Buddha statue were divided into zones and painted with different motifs. That the ornamentation was specifically adapted to the niche architecture is very clear. As Akira MIYAJI, a member of the Japan-Afghanistan Joint Archaeological Survey, has described (Miyaji 1976: 21–2),¹ zone 1 is the ceiling above the head of the Grand Buddha and is subdivided into sub-zones A, B, C, C', D, D', E and E' (Fig. 8). The central part of the ceiling A has mostly peeled away, but the few remaining portions seem to indicate that once this spot was occupied by a huge painting of a seated *bodhisattva*. Below this, two female musicians play harp and flute. In sub-zone B, six *bodhisattvas* sitting under pediments were painted, but now only three of them remain. Each side of the ceiling, C and C', had a series of seven or eight *bodhisattvas* under alternating niches of pediments and arches; more than half of these have peeled away. The *bodhisattvas* in B, C, and C' are seated on chairs or recline on cushions surrounding the central great *bodhisattva* painted in zone A. They are divided from each other by pillars. From the abacus of each of these pillars appear two deities, male and female. Some scatter flowers, some play musical instruments, and others are in an attitude of worship facing each *bodhisattva*. The above-mentioned zones constitute the ceiling paintings of the niche, and zones D and D' form a canopy of garland and curtain-like designs.

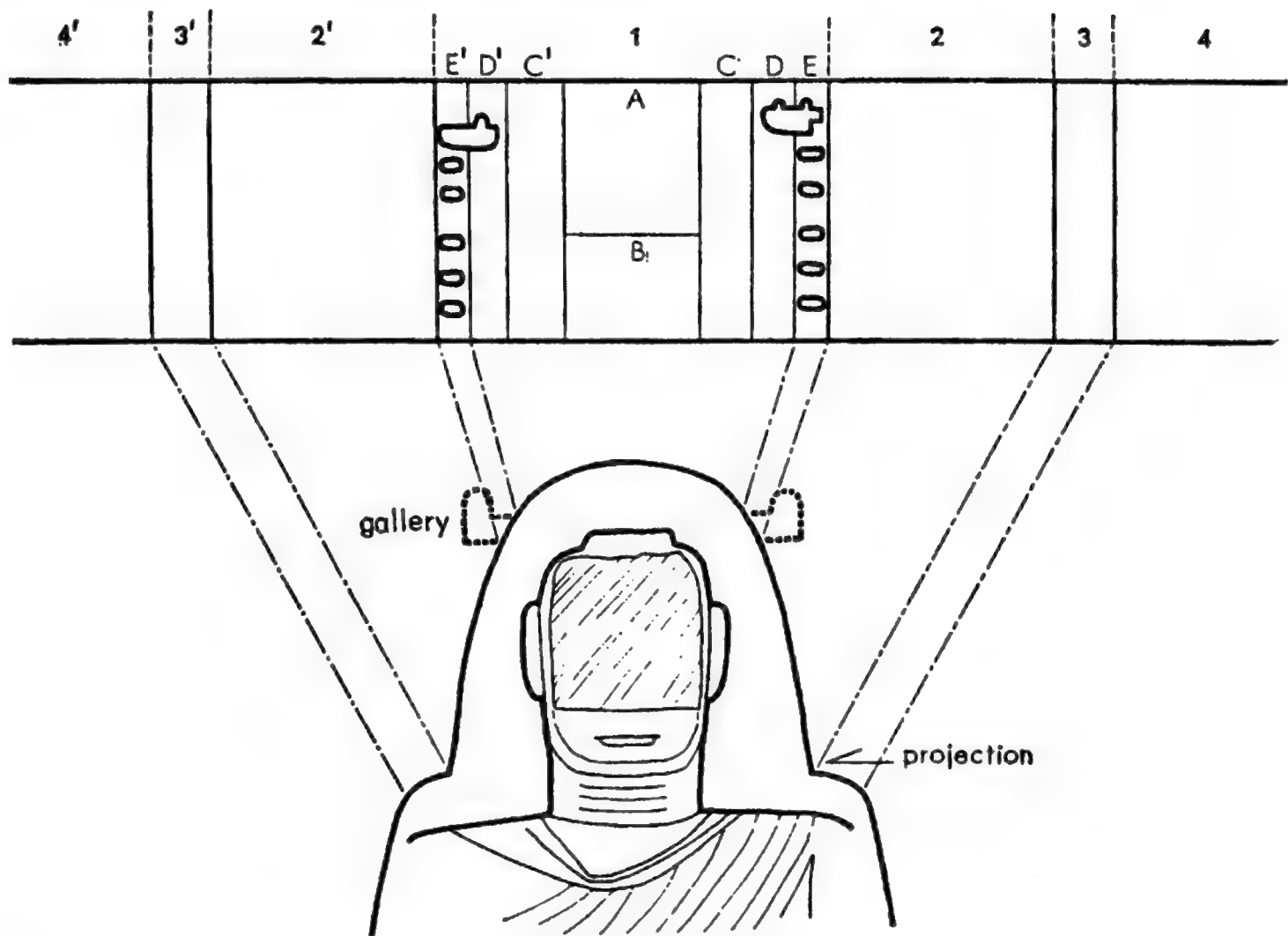


Figure 8 Zonation of the niche decoration over the West Grand Buddha (Miyaji 1976: 21).

Paralleling the galleries separating zones 1 and 2 are simple ornamental zones, E and E'. Here holes are found at intervals of about two meters. As T. Kotera of the Bamiyan-Nagoya University Investigation of 1969 has pointed out, a large balcony of wood seems to have been anchored in these holes, which might correspond to the lower fringe of a canopy at a point nearly level with the Grand Buddha's head. Such a balcony quite possibly provided royalty and their followers as well as musicians with seats from which they might worship and offer hymns to the Grand Buddha. The painting above this installation depicts the heavenly worlds.

On the walls of zones 2 and 2' were depicted three series of five seated *buddhas*; those of zone 2', however, are now mostly destroyed. In zone 2, five *buddhas* are seated in oriental pose under *bodhi*-trees. The three *buddhas* in front are all drawn in their ordinary monastic garments and posed in hand gesture (*mudra*) of 'Turning the Wheel of the Law'. The second *buddha* from the back wall is represented as wearing a gorgeous chasuble and crown. The *buddha* closest to the back wall is also depicted with a crown, but scarcely anything of the painting remains. Between the haloes of each *buddha*, three lotus buds are drawn.

This representation of the group of *buddhas* in zones 2 and 2' continues into zones 4 and 4' but is interrupted by the projecting portions 3 and 3' at the level of the Grand Buddha's shoulders. The wall paintings of 3 and 3' depict five medallions. Except for the medallion closest to the back wall, which is completely defaced, each one carries pictures of deities flying about the heavens and facing the Grand Buddha as they scatter flowers and worship him. This has reached a very high level of lifelike representation. The paintings of the east

side wall zone 3 are greatly damaged. The theme and style are different from those of the west side. In the exterior medallion, which still remains in good condition, we can see an interesting deity who wears a mantle, puts on gaiters and holds a purse.

The paintings on both walls of zones 4 and 4' below the projecting portion have been largely destroyed, but the pattern continues from zones 2 and 2' above. On the east side, zone 4, the upper series has four seated *buddhas* under *bodhi*-trees, and below that the large haloes of *buddhas* and a king and queen are found. Furthermore large lotus flowers and buds are recognizable. So the theme of these paintings is different from those on the west side in zone 4', which is composed of a myriad *buddhas*.

Only a few portions of paintings remain, but the general composition and style of the paintings in this niche can now be understood. In the center of the ceiling, a great *bodhisattva* is represented, no longer extant, and, below this, musicians play heavenly music. Around the great *bodhisattva* are many other lovely *bodhisattvas* interspersed with fascinating figures of deities representing the heavenly land of the *buddha*. The great heavenly land is bordered by the decorative hem of a canopy. Below it, on both sides of the niche, the myriad *buddhas* are seated beneath the *bodhi*-trees. There is a bejewelled *buddha* among them. The projecting portions of the niche carry pictures of flying deities, which articulate the entire composition and distinguish this heavenly land. On the side walls below the projecting portions, the above composition of the myriad *buddhas* continues, but a king and queen appear at the east side wall participating in this Buddhist land. Thus the depiction of a great world is accomplished.

Dating the caves

According to Chinese chronicles of the Tang dynasty, the name of Bamiyan was known by the fourth century; a remark in the *Northern History* compiled by Li Yanshou mentioned that 'The Tokhara state was 12,000 li from Dai [state, AD 315–386], and east from there one came to Bamiyan(g) state' (Li 1974). Visits were actually made to Bamiyan by two Chinese, Xuanzang in 632 and Huichao in 727. Thus it is inferred that Bamiyan's period of florescence was in the sixth to seventh centuries, and it still flourished in the eighth. However, in the ninth century, Islamic cultures invaded the region of Afghanistan, bringing to an end the use of the Buddhist cave temples and beginning centuries of destruction. Thus, whatever artistic construction the caves underwent must have been completed prior to 800 AD, and they represent a synthesis of various elements from several countries: Buddhism from India, Gupta sculptural styles and influences from Sassanian Persia, Byzantium of the Eastern Roman Empire and the Tokharan country of Central Asia.

Modern fate of the caves

The Bamiyan Caves are undergoing both natural and artificial destruction. Natural exfoliation of the murals continues daily, but, since the ninth century, the caves have been the target of intentional desecration. Islamic elements have inflicted much damage, especially through the mutilation of the faces of Buddhist images in almost all the murals. In the thirteenth century, when Genghis Khan attacked Bamiyan, further destruction took place; murals were demolished and the actual caves themselves were destroyed. In the



Plate 3 The feet of the West Grand Buddha, with shins of the sculpture blown away by Aurangzeb's cannon in the seventeenth century. Note the openings leading to the circumambulation tunnels in the back walls (Higuchi 1980: plate 57). (From *Cave Temples in Bamiyan* (1980), ed. T. Higuchi, reproduced courtesy of the Dohasha Publishing Co. Ltd, Japan.)

seventeenth century, Aurangzeb, the future Mughal Emperor of India, campaigned in Kandahar and Balkh before he ascended the throne in 1646; while he was in Bamiyan, a cannon was directed at the West Grand Buddha sculpture and the shot damaged the section from the knees down (Plate 3). In our own time, the faces of the two Grand Buddhas have been shorn away and both sets of hands broken off. Most recently, some caves have been used as barracks and powder magazines by anti-government military groups in Afghanistan's civil war.

The significance of the Kyoto Archaeological Mission's work is that the natures of all the caves – not just those with murals which attracted previous researchers – were documented in their entirety. As ever more destruction is visited on these caves, the database created in the 1970s by our work there gives the world fundamental research materials that cannot be recaptured or replaced. These authentic materials, using state-of-the-art techniques such as photogrammetry which is non-destructive in itself, are published in four large volumes with extensive English summaries and thus available for world study.

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Note

1 The following section is taken verbatim from Miyaji's report for the project, with minor editorial changes.

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